

Plain lugs, projecting out in the same plane as the bottom of the jig, or lugs with a slot in them to fit the body of T-bolts, are the common means for clamping fixtures to the table. In boring jigs, it is unnecessary to provide more than four clamping points, as a greater number is likely to raise the springing action in the fixture. A slight springing is almost unavoidable, no matter how strong and heavy the jig is, but, by properly applying the clamps, it is possible to confine this springing within commercial limits.

Jigs should always be tested, before they are set, so as to make sure that the guiding provisions are placed in the right relation to the locating points and in proper relation to each other.

Summary of Principles of Jig

Summarizing the principles referred to, the following rules may be given as the main points to be considered in the designing of jigs and fixtures:

1. Before planning the design of the tool, compare the cost of production of the work with present tools with the expected cost of production, using the tool to be made and set, that the cost of building is not in excess of expected gain.
2. Before laying out the jig or fixture, decide upon the locating points and outline a clamping arrangement.
3. Make all clamping a **binding device** as quick and simple as possible.
4. In selecting locating points, **select two component points** of a machine can be located from corresponding **point** and **side** faces.
5. Make the jig "fool-proof"; that is, the work cannot be inserted **except in the correct** way.
6. For rough castings, make **of the locating points** adjustable.
7. Locate clamps so that they **will fit in the position**

resist the pressure of the cutting **tool** at
8. Make, if possible, all **clamps integral** of
the jig
fixture.

9- Avoid complicated clamping i
liable to wear or get out of order.